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#### ABSTRACT

Attempts to answer the question "What does research say about getting innovations into schools?" are based on the experiences of a nonprofit organization that has been engaged in staff development efforts to bring about change in schools. The paper presents a general description of the organization's operation; its relationship to other change efforts; and a description of a developmental model of organizational renewal, evolved from an analysis of projects in the past three years. Highlights of an actual case are presented to illustrate the progress of a typical group within a typical school staff. (Author/MLF)

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# FOSTERING CHANGE FROM WITHOUT:

A PRACTICAL PERSPECTIVE

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NETWORK OF INNOVATIVE SCHOOLS

GETTING INNOVATIVE PRACTICES INTO SCHOOLS
RELATED RESEARCH FINDINGS

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### INTRODUCTION

Our response to the question "What Does Research Say about Getting Innovations Into Schools?" is based on our experience as an organization which is attempting to bring about change in schools.

In the pages that follow, we have attempted to answer the focusing question from a practical vantage point, drawing on supporting work where appropriate. By grounding our discussion in this real world context, we hope to add a perspective which will enrich the symposium dialogue.

The paper presents a general description of our <u>modus operandi</u>, its relationship to other change efforts, and a description of a Developmental Model of Organizational Renewal, evolved from an analysis of our efforts in the past three years, which we have found useful in analyzing our own work. A case drawn from our recent work then extends the discussion and serves as a springboard for discussion.

### BACKGROUND

The NETWORK OF INNOVATIVE SCHOOLS is a non-profit organization which has been engaged in staff development efforts with a variety of public, private and parochial schools in Massachusetts since 1969. [The reader interested in an extended treatment of the NETWORK's history is referred to Crandall (1970, 1971).] These efforts have as their long-term goal the development of self-renewal capacities within the client organizations. Thus, the "innovation" which has been the central focus of our attention is a set of process skills, with systematic problem-solving techniques at the core. Despite this central thrust, our actual work with clients has also dealt directly with more tangible innovations as short-term vehicles along the road toward organizational renewal. This phenomenon has led to some important learnings for us about what it takes to bring about change in schools.

Our primary contacts with schools are maintained by a team of trained professionals who devote a large percentage of their time to field work. We concur with the assumption that meaningful change in schools requires the intervention of outside experts (Miles 1964). Further, our use of field staff acknowledges the importance of personal contact as an on-going requirement for change (Wolf and Fiorino 1971; Sieber et al 1972; Crandall and Austin 1973). From the outset, these field staff have been referred to as "linking agents" and have interacted with clients in much the

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NIE (Sieber et al 1972; Mick, Paisley & Paisley 1973). As such, they have experienced the inevitable tension resultant from the attempt to operationalize a role which consolidates the "conveyor of knowledge" [cf. Havelock (1968) and also Sieber's Rational Man strategy (1968, 1972)] and the "process helper" [cf. Havelock (1970) and also Sieber's Cooperator Strategy (1968, 1972)]. As Sieber has noted in his evaluation of the Pilot State Dissemination Project (1972), a field agent's success is dependent on the agent's facility in shifting from one role to the other as the situation demands.

### EARLY EFFORTS

Our initial efforts with teachers were based on the belief that if teachers could be trained in problem-solving skills, they could then apply these skills to any problem situation. Our field agent initially would convene the faculty for one or more problem identification sessions. Once problems were identified, Action Teams (problem-focused small groups) were formed to be coordinated by inside Helpers. The Inside Helpers (self-selected) were the targets for training sessions in problem-solving techniques conducted by the linking agents. The specific techniques were based on the classical rational problem-solving sequence (Lippitt, Watson and Westley, 1958) and utilized

techniques adapted from NWREL's RUPS training program
(Jung et al 1970). [Eiseman's (1975) expanded version of this linear-rational model also served us as a handy check on our own efforts.]

Our initial plan called for the linking egent's role vis-a-vis the Action Teams to be that of "conveyor" bringing to the problem-focused groups information on the problems they were attacking. Ultimately, we hoped to disengage, leaving each school with a built-in renewal capacity: the ability to identify and solve problems by themselves in self-selected groups spearheaded by the Inside Helpers. Only minimal technical assistance and/or information-gathering would be needed from the NETWORK. This approach viewed each group as moving from a state of high dependency (on the NETWORK) through to a state of independence, with the Inside Helpers taking on the previous functions of the NETWORK vis-a-vis the larger faculty.

It would be fair to say that these early attempts were less than completely successful. In virtually every case, we were unable to sustain sufficient interest in, and/or overcome initial resistance to, directed training in problemsolving techniques. Our experience would seem to corroborate

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the conclusion of Mick et al (1973) that such training is probably more appropriate at a later phase of intervention. There seemed to be a basic mismatch between our intervention strategy and the felt needs of the schools.

All aspects of this mis-diagnosis cannot be treated adequately in this short document. However, a summarization of what we believe to be the core issue may be instructive and expecially pertinent to the question we are examining in this symposium.

### STABLE ORGANIZATIONS VS. OPEN SYSTEMS

The central problem revolves around the recurring dilemma faced by today's schools. In the opinion of many well-known observers and analysts of the current scene, schools are in desperate need of revitalization in order to respond to the rapidly changing requirements of a society experiencing ever more frequent and more complex advances in technology. This state of affairs:clearly suggests the need for schools to become dynamic, adaptive institutions. However, the survival of schools to date, can be traced to their success in maintaining themselves as stable organizations. Indeed, the cries of dismay

from "outside experts" notwithstanding, schools are functioning essentially as desired by the society at large (cf. the 1973 Gallup Foll). Williamson, (1972) in an eloquent extended treatment of this subject, summarizes the situation as follows:

"In the past century, modern industrialized society, particularly in this country, has been one of rapid advance in a technological and economic sense; yet it has been change amid a basically stable framework of fundamental social values and purpose. To insure optimal effectiveness and efficiency under conditions of relative social stability, an organization must be characterized by competence and controlled, disciplined, and predictable behavior... The public mandate to the schools has been essentially that of preparing competent, stable, loyal and disciplined young men and women who could function successfully in a society dominated by the values and needs of bureaucratic organizations. It is no accident that the bureaucratic substance of society's mandate in turn made bureaucracy the logical organizational form of the schools."

In the face of such massive pressure to preserve the status quo, we shouldn't be surprised at the hesitance of teachers and administrators to venture out of their current "safe corners". We have reluctantly concluded that it is unrealistic to hope that most schools will change dramatically in the next ten years. Nonetheless, lasting and desirable change continues to be a

possibility for many schools. This view, of limited but real promise, is shared by Mick et al(1973):

"...an educational extension system must deal with educators possessing about the same competencies they now possess, located within an educational structure similar to the present one, inadequately funded vis-avis stated goals, and assisted only by non-magical R&D and technology. The most appealing vision of education cannot be achieved within such constraints, but much can be done if the constraints are recognized and accounted for."

### THE NEED FOR DIFFERENTIATION OF INTERVENTION

Our experience has shown that the typical teacher in the typical school views consultants as "solution-givers" (Havelock, 1970). Interactions taking place under such conditions maintain a state of client dependency contrary to the notion of a problem-solving individual or organization. It was the conscious rejection of the 'solution giver' role which led the NETWORK to initially attempt interventions focused on developing problem-solving skills which would diminish client dependence on outsiders (except for specific, targeted assistance in solving problems identified by school-based teams). Our lack of success certainly does not mean we think the strategy lacks potential, only that it is not likely to succeed in most school situations given the present nature of

such organizations and their members. Indeed, recent successes in CASEA's Program 30 in Oregon speak to the positive possibilities (Schmuck and Runkel, 1970; Schmuck, Runkel et ai, 1972.)

A key feature of our strategy was the "problem-identification session", designed to be a dynamic needs assessment vehicle. However, needs assessment, to be truly effective, requires: clarity of goals, a realistic assessment of the present state, and some sense of the discrepancy between the two. That these requisite conditions do not characterize most educational institutions has been noted by Miles (1965) and Sieber (1968) among others. Thus, as has been noted most recently by Ely (1973), "we end up with a list of wants rather than needs." It appeared, after several abortive efforts, that if we intended to become process helpers to the schools and individuals with whom we worked, we would first have to behave as solution-givers.

We have been able to reconcile the seemingly contradictory nature of these two roles by reconstructing our past experiences and conceptualizing a model to guide our future actions and gain a useful perspective on our goals vis-a-vis self-renewal. With apologies to those who are up to their ears in models, we would like to share our conceptualization with you. It should be stressed that his model is one which we have found helpful in grappling with questions about our progress in a given school. As such it may be more important as an indicator of our own idiosyncratic view of the world than as a model useful to

others in other settings.

# A DEVELOPMENTAL MODEL FOR ORGANIZATIONAL RENEWAL

The model presented in this section views organizations as displaying behavior along two critical dimensions, both of which need to be considered during initial diagnosis, early intervention, and subsequent intervention phases if a self-sustaining capacity for change is to occur. It is an adaptation of the Life Cycle Theory of Leadership developed by Hersey and Blanchard (1969, 1972). We have taken their concepts re: situational leadership and applied them to findings re: change in organizations drawn from an analysis of our experiences in schools.

The first dimension is the "KNOWLEDGE UTILIZATION"

(KU) dimension. For our purposes, we are defining KU behaviors as those which have as their focus the acquisition of new knowledge or techniques related to solving problems which have a content emphasis. Schools exhibiting KU behavior are likely to be seeking immediate solutions to their problems. Their primary concern is on getting the what of change

instituted as quickly as possible. Schools exhibiting this behavior look to outside experts to provide the answers, i.e., function as solution-givers.

Obviously a school as an open, adaptive system must be constantly seeking out new knowledge and using it to modify the way it functions. What is often the case, however, is that the new knowledge (solution) is presented without the implementors of the new knowledge ever having been aware of a problem. The number of dollars spent on behavioral objectives in-service workshops, for example, must be astronomical. Yet the number of teachers who have changed their mode of instruction from one which focuses on activities to one which focuses on outcomes is still quite small. Where is the impact of this new knowledge?

Lost, we would say, somewhere between the teacher's inability to conceive of the need to change their instructional focus and the lack of demands by the school system to teach in such a way that it would be impossible for behavioral objectives to be avoided. In short, for change to take place, the input of new knowledge in and of itself is not enough.

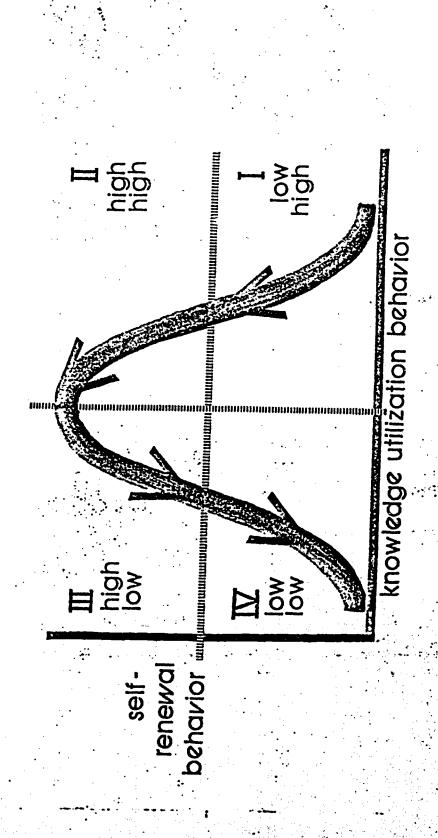
This brings us to the second dimension of the model, the "SELF RENEWAL" dimension. SR behavior as used here refers to those organizational behaviors characterized by emphasis on the process aspects of problem solution. Schools exhibiting SR behavior are developing or have developed capacities to analyze/diagnose their own problems, set clear goals, systematically generate sets of alternative solutions, select and implement one, evaluate its effectiveness, and make such revisions in progress as are required. Such schools recognize that the how and why of change is as important as the what. They would recognize that outside experts can be helpful in a wide variety of ways such as serving as a facilitator with an outside perspective. These schools see themselves as in control of their future, capable of planning for the middle and long-term, and responsible for their own ultimate

success or failure. They take risks, are more open to fresh alternatives, and are more comfortable interacting with consultants as coequal professional partners in a shared enterprise. When SR behaviors are fully developed and institutionalized, mechanisms are ready to come into play which enable the organization to respond positively and appropriately to new demands.

Getting SR behaviors fully developed and institutionalized is no easy task. If certain schools may be faulted for providing new know-ledge in a vacuum, other schools may be equally at fault for spending too much time on process, avoiding making a decision, for example, because the problem may not have been accurately identified; or spending time on goal setting when students (either figuratively or literally) are wasting away in classroom activity better suited to another century.

The Developmental Model conceptualizes the possibility of change activity taking place along both dimensions, Knowledge Utilization and Self Renewal. These two dimensions may be depicted graphically. In the model, organizations can be described as residing at some point on a continuum which progresses from behavior restricted solely to KU through progressively more sophisticated stages to a point where both sets of behaviors are present. With both behaviors operant, the organization has the capacity for self-renewal and dynamic adaptation to new demands on the system.

For purposes of simplification, the model depicts four quadrants which can be used to classify an organization based on its dominant behavior(s). It should be noted that a given school may be "located" at any point on the continuum at a given point in time. In fact, a "fully developed" organization (low, low) has the capacity to move itself into the appropriate mode (quadrant) in response to a particular situation,



MODEL of ORGANIZATIONAL RENEWA DEVELOPMENTAL

The key features distinguishing the quadrants are cast in terms of the behaviors of the clients and the actions of the consultant:

# Quadrant I - High Knowledge Utilization, Low Self-Renewal

CLIENT PERSPECTIVE:

Need/want for answers. Concerned with solving immediate problems in the shortest possible time. Emphasis on content of the innovation, the what of the new curriculum, getting the new organizational arrangement functioning, etc. Readiness to "learn" from experts only. (Clients do not consider each other valid sources of expertise.)

CONSULTANT PERSPECTIVE:

Behavior is reactive, based on felt needs (wants) of clients. Credibility and perceived usefulness depend on delivery of knowledge about specific innovations. Consultant as source and/or conveyor of wisdom.

DESIRED OUTCOMES:

Creation of greater awareness, understanding re: the innovation. Acquisition of new techniques which have "Monday morning" payoff by expanding the repertoire of teaching skills, enlarging the clients "safe corner"/confidence level and setting the stage for greater risk-taking. Develop trust/credibility as basis for Quadrant 2 activities.

# Quadrant II - High Knowledge Utilization, High Self-Renewal

CLIENT PERSPECTIVE:

Concerned with problem areas with middle range implications and a process focus within a content context. Readiness to be the source of expertise in directed interactions. Awareness that they have a stake in the how of an innovation.

CONSULTANT PERSPECTIVE:

Pro-active re: structuring meetings, establishing agendas, focusing discussion, calling for closure, noting consensus,

outlining next steps. Blends in content expertise only to the extent that it won't jeopardize group "ownership" of the outcomes. Builds on credibility developed in Quadrant I.

DESIRED OUTCOMES:

Decisions, plans of action, ongoing activities involving clients in doing/renewing. Client awareness that meetings have gone more smoothly, been more efficient/effective than before; clients feel increased "power" over their situation; boundaries of "safe corner" expand vis-a-vis "legitimate topics for attention", skills one should have, etc.

# Quadrant III - Low Knowledge Utilization, High Self-Renewal

CLIENT PERSPECTIVE:

Process considerations predominate. Concern with acquiring and using skills modeled by consultant. Sees utility in investigating the why of innovations. Has adequate comfort re: content problems, e.g., in full control of instructional process. Readiness to learn/practice new skills in a more interactive environment calling for initiative and creative thought.

CONSULTANT PERSPECTIVE:

Initially that of trainer for problemsolving, goal-setting, and planning type
skills. Attention to explicitly building
bridges to the real world situation of the
clients vs. assuming that participation in
exercises results automatically in the
concomitant intellectual growth necessary
for generalizing to the practical setting.
Subsequent role would call for process
observation and facilitation of efforts of
others. Reporting, summarizing, and synthesizing functions might come into play.

DESIRED OUTCOMES:

Trained cadres of insiders capable of handling their own meetings with minimum assistance. Awareness of need for on-going help on team-building, communicating, decision-making. Greater initiative

re: seeking new problems to solve. Expansion of "safe corner" and increased feeling of "power" due to increased competence. Development of professional/colleagual relationship with peers and consultant.

# Quadrant IV - Low Knowledge Utilization, Low Self-Renewal

This quadrant is characterized by a fully-functioning school at a given point in time. As a result of a series of successive approximations through Quadrants I - III, the school has developed an adaptive capacity which enables it to marshall resources (internal and external) to recycle to one of the quadrants as needed. The capacity for self-renewal has been institutionalized.

Thus, to insure that the intervention leads to progress along the continuum, the consultant must both structure experiences and capitalize on fortuitous circumstances in order to elicit successive "ahas!" from the participants. Such synthesizing experiences "locate" a group on the continuum and help the consultant evaluate the appropriateness of his in-progress intervention activity. The long-term goal of organizational self-renewal can remain clear (or can be brought back into focus) even during initial phases when the emphasis might be on content innovations.

In the next section, highlights of an actual case are presented in order to illustrate the progress of a typical group within a typical school staff. The events prior to the May 1972 Problem Identification Workshop are presented as

background to the specific intervention cycle.

# Shady Grove High School

# Highlights of an Intervention

### Keystone Events

### Commentary

11/69 Initial expression of interest in NETWORK from Superintendent.

The Superintendent realized early (prior to the school's opening) that outside help would be beneficial. He had determined that the school would be characterized by team teaching, individualized instruction, nongradedness, and use of small groups.

These goals were 'dreams' which had not been integrated into the planning for either the facility, staffing, or curriculum development.

Fall Course in Team 1970 Teaching offered.

In response to the Superintendent's request, the NETWORK presented a semester-long course for teachers who would be joining the faculty when the school opened in 1971.

Summer Summer Institute
1971 on Developing
Learning
Activity
Packages (LAPs).

The Superintendent had determined that the best way to individualize programs was the utilization of LAPs. A large block of teachers participated in a six-week workshop run by an organization other than the NETWORK. We assisted the other group throughout, giving special attention to the Shady Grove teachers.

9/71 School officially opens.

The building opened two weeks behind schedule and was not fully outfitted until the end of the year. This state of affairs was obviously an important factor influencing the

staff's lack of readiness for much of anything other than getting physically settled.

1971- Work with 1972 administrators.

Given the conditions the teaching staff faced, we spent the bulk of our time during the school year in consultation with the Superintendent. Late in the year, we became involved tangentially in the school's first contract negotiation. Though we still had some contacts with the faculty, we were concentrating on the higher levels of the administration and became identified with them. This was to cause re-entry problems later with the faculty.

5/72 Problem Identification Workshop.

In an effort to gain current data about the school's needs as viewed by the staff, we conducted a workshop which generated data via both small group consultant-directed problem identification sessions and post-session questionnaire. The output was summarized for feedback to the faculty and used as input to our planning for summer workshop sessions. Problems identified fell into both content/curriculum areas (Quadrant I) and process/procedural areas (Quadrant II).

7/72 Summer Workshop in Curriculum Building

This was a clear Quadrant I activity. Although the workshop was boycotted by 2/3 of the faculty due to a breakdown in contract negotiations, a productive series of input sessions on various techniques for developing an individualized curriculum based on LAPs was presented.

9/72 Opening Workshop

Our initial plan was to spring off the data from the May problem identification workshop and organize small groups to work on both problem areas - a mix of Quadrant 1 and Quadrant 2 activity as appropriate. Two factors quashed this notion: 1) The faculty had never received the data summary- the Principal had stopped distribution because the results were too "hot" but hadn't told us; and 2) Even when the data was finally supplied and reviewed, the majority of the faculty wanted to know what we had done about the problems. (Quadrant 1 behavior). After all, they had identified the problems (for us), we were the experts, where were the solutions?

9/72 Planning Group Formation

Despite the rather dismal general picture, we were successful in structuring a portion of the opening workshop in a way that allowed/caused ten teachers to risk being very vocal, commit themselves to doirg something about their situation, and allowing us to help them channel their activities. Enough had come together for them (an aha!) that they saw the importance of moving into a new mode of behavior.

9-11/72 Planning Group Plans These ten teachers formed a planning group which met throughout the early fall in a configuration which included the Network linking agent as the chairman/secretary of the group. He took responsibility for getting the agenda up and out on newsprint, asking focusing questions, being sure decisions were made and responsibility for next steps taken, preparing the minutes and distributing them. (This was done using plain bond vs. NETWORK stationery to preserve the group's ownership of the contents.) A prime example of Quadrant 2 activity.

During this period, the group recruited additional members to expand their representation and requested that key administrators sit with them regularly. They planned a half-day workshop for the total faculty, negotiated for release time and gathered data from the total staff regarding priority areas (problems) to be addressed during the half-day.

II/72 Total Faculty Workshop

Based on the data received from their survey, the planning group assigned each of the faculty to one of nine small groups to make recommendations (generate solutions). Each small group was chaired by a member of the planning group. The half-day workshop was opened by a member of the planning group. Her opening statement speaks to the insights they had experienced while working with the NETWORK:

"Their [the NETWORK's] purpose is to help us to help ourselvesto lead and guide us - to help us to find our way -- to sort out our difficulties and seek solutions to our problems. We have allowed the NETWORK to plan and organize our meetings, and then we complained about the organization and content. Finally, a group of us volunteered to set up the next workshop and we have....The ideas are all ours. We hashed over and over many of the same things that have been hashed over before, decided what was most pertinent and necessary to our current situation. and then organized today's workshop to work on those problems and hopefully to find some solutions. If you have any complaints about today's workshop, they should be

directed to us, the Planning Committee, not the NETWORK."

At the close of the workshop, recommendations (possible solutions) had been listed for each of the nine problem areas. These were shared with the total group as the last activity of the day. During this final segment, many expressed concern that the work of a small group didn't really represent the thoughts of the total faculty.

11/72- Followup
12/72 Activities

Responding to their colleagues' concern, the planning group developed separate questionnaires for each of the nine areas which were distributed to the faculty. Better than 75% responded, and the results were tabulated for consideration by the planning group. In the majority of the nine areas, additional ad hoc meetings by the original groups from the November workshop preceded submission of findings to the planning group. These ad hoc meetings were not attended by our linking agent.

During this stage, the planning group was meeting for what were essentially "input to the key administrators for decision" sessions. The data summaries were coming in on a staggered basis and, as they did, were considered in a discussion/decision session. Our linking agent's role was primarily that of observer.

By the time of the Christmas break, decisions had been made and/or next steps for further data gathering outlined on all major areas.

1/73- Recycling 6/73

During the first half of the school year, the group had moved from simple reliance on the NETWORK for solutions (Quadrant I) through a series of activities which took them well into Quadrant II. Given the nature of the problem areas, i.e., most were curriculum-based, the group, quite appropriately, moved to a cycle of individual and departmental curriculum development which did not call for further meetings of the Quadrant II variety.

7/73- Summer 8/73 Curriculum Workshops

During July and August, small groups of teachers were engaged in curriculum writing. We acted as a resource to them and to new faculty who dropped in for pre-orientation, providing information about curriculum development, instructional alternatives, and student activities.

8/73 Orientation for new teachers

A two-day workshop for new teachers which introduced the school's preferred teaching methodology, i.e., LAPs, was conducted by the NETWORK's linking agent. This was Quadrant I activity with a new group.

9/73- The Future ????

We predict that the future will hold a number of recurring cycles such as the one reported above. Each cycle (QI - QII - QI) is essentially a successive approximation which should expand the "safe corners" of the individuals, groups, and school and bring them closer to readiness for Quadrant III activity. We anticipate a continued need to operate at different levels with different groups, and are not closing out the possibility of "spontaneous" growth to Quadrant III behavior.

#### REFERENCES

- Crandall, D.P. The Network of Innovative Schools Conceptualization and History. (mimeo) School of Education, University of Massachusetts, Amherst, 1970.
- Crandall, D.P. The Elementary Principal and the Network A Strategy for Collaboration. Massachusetts Elementary School
  Principals Association Newsletter, January 1971.
- Crandall, D.P. and Austin, S. A Field Application of the Far West Lab Model: The Role of the Linking Agent in Affecting Educational Change. Paper presented at the annual meeting of the American Educational Research Association (AERA), New Orleans, Louisiana, February 26, 1973.
- Eiseman, J.W. Personal Communication. University of Massachusetts, 1973.
- Ely, D.P. The Myths of Information Needs. *Educational Researcher*, April 1973.
- Gallup, G.H. 5th Annual Gallup Poll of Public Attitudes Toward Education. *Phi Delta Kappan*, September 1973.
- Havelock, R.G. Dissemination and Translation Roles in Eidell, T.L. and Kitchel, J.M. (eds.), Knowledge Production and Utilization in Educational Administration. Eugene, Oregon: University of Oregon, Center for the Advanced Study of Educational Administration, 1968.
- Havelock, R.G. A Guide to Innovation in Education. Ann Arbor, Michigan: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, 1970.
- Hersey, P. and Blanchard, K.H. Life Cycle Theory of Leadership. Training and Development Journal, May 1969.
- Hersey, P. and Blanchard, K.H. Management of Organizational Behavior Utilizing Human Resources, 2nd edition. Englewood Cliffs, New Jersey: Prentice Hall, 1972.
- Jung, C., Pino, R. and Emory, R. RUPS: Research Utilizing Problem-Solving, Leaders Manual. Northwest Regional Educational Laboratory, Portland, Oregon, 1970.

- Lippitt, R., Watson, J. and Westley, B. The Dynamics of Planned Change. New York: Harcourt, Brace and Co., 1953.
- Mick, C., Paisley, M. and Paisley, W. Development of Training Resources For Educational Extension Services Personnel: Final Report. Stanford, California: Institute for Communication Research, Stanford University, 1973.
- Miles, M.B. Innovation in Education: Some Generalizations in Miles, M.B. (ed.), *Innovation in Education*. New York; Teachers College Press, 1964.
- Miles, M.B. Planned Change and Organizational Health: Figure and Ground in *Change Processes in the Public Schools*. Eugene, Oregon: University of Oregon, Center for the Advanced Study of Educational Administration, 1965.
- Schmuck, R. and Runkel, P. Organizational Training for a School Faculty. Eugene, Oregon: University of Oregon, Center for the Advanced Study of Educational Administration, 1970.
- Schmuck, R.A., Runkel, P.J., Saturen, S.L., Martell, R.T., and Derr, C.B. *Handbook of Organization Development in Schools*. Palo Alto: National Press Books, 1972.
- Sieber, S.D. Organizational Influences on Innovative Roles in Eidell, T.L. and Kitchel, J.M. (eds.) Knowledge Production and Utilization in Educational Administration. Eugene, Oregon: University of Oregon, Center for the Advanced Study of Educational Administration, 1968.
- Sieber, S.D., Louis, K.S. and Metzger, L. The Use of Educational Knowledge: Evaluation of the Pilot State Dissemination Program. Final Report. New York: Columbia University, Bureau of Applied Social Research, 1972.
- Williamson, J.N. The Inquiring School: A Model of Knowledge Utilization in a Self-Renewing Learning Environment. Paper presented at the annual meeting of the American Educational Research Association (AERA), Chicago, Illinois, April 5th, 1972.
- Wolf, W., Jr. and Fiorino, A.J. A Study of Educational Knowledge Diffusion and Utilization. Dayton, Ohio: Charles F. Kettering Foundation, 1971.